



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------------|------------------|
| 10/552,631 | 10/07/2005 | Ragnar Tryggvason | 05049.0004 | 8991 |
| 22852 | 7590 | 05/04/2010 | | |
| FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413 | | | EXAMINER KURTZ, BENJAMIN M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1797 | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 05/04/2010 PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,631

Applicant(s)

TRYGGVASON ET AL.

Examiner

BENJAMIN KURTZ

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22, 24, 25 and 36-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22, 24, 25 and 36-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 22, 24, 25 and 36-58 are pending and claims 1-21, 23 and 26-35 are cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 22, 24, 36-39, 40-49, 52 and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meissner US 5 707 536.**

Claim 22, Meissner teaches a cartridge (15) including: an inner space, an inlet (115) formed at a first diameter end of the cartridge, an outlet (175) formed at a second diameter end of the cartridge and a device (150) comprising a hollow body defined by a wall enclosing a cavity of the hollow body, the hollow body having a first end and a second end and being provided with at least one slit shaped opening (154) extending through the wall, the first end of the hollow body being mounted to the cartridge at the inlet such that the hollow body extends into the inner space and the second end of the hollow body being located in the inner space of the cartridge, wherein the hollow body

has a center axis, the center axis of the hollow body being arranged substantially parallel to a longitudinal dimension of the inner space, the first end of the hollow body being open, wherein the at least one slit shaped opening has a first extension and a second extension being substantially perpendicular to the flow direction and to the first extension, wherein the second extension is significantly shorter than the first extension and significantly shorter than a length of the slit shaped opening in the flow direction (fig. 2, 5). Meissner does not teach the first diameter end of the cartridge being larger than the second diameter end of the cartridge. The claim merely recites a change in the shape of the cartridge from a cylindrical cartridge to a conical shaped cartridge. The configuration of the apparatus is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant, *In re Dailey*, 149 USPQ 47 (1966). Applicant has not provided any evidence showing that a conical shaped cartridge would perform any differently or have any unexpected results over a cylindrical cartridge. Such a change in the shape of the cartridge is considered to be obvious to one of ordinary skill in the art and does not patentably distinguish over the prior art.

Claims 24, 36-39, 45-49 and 52, Meissner further teaches the cartridge includes a filter (135) arranged at the outlet, the filter permits fluid to pass through the filter in a filter direction (fig. 5); the hollow body has a center axis and an elongated tubular shape along the center axis (fig. 5); the hollow body is tapering along the center axis towards the second end of the hollow body (fig. 5); the hollow body at the first diameter end has an engaging means configured to connect the device to the cartridge (fig. 2, 5); the first

extension is substantially perpendicular to the flow direction (fig. 1-4); the at least one slit shaped opening is a plurality of slit shaped openings extending through the wall (fig. 2); the plurality of slit shaped openings are distributed around the wall (fig. 2); the hollow body has a wall portion at least in the proximity of the second end of the hollow body, and wherein the at least one slit shaped opening extends through the wall portion (fig. 2); the wall portion has a tip like shape (fig. 2); the wall portion is substantially conical (fig. 2); and the flow direction forms an angle to the center axis (fig. 2).

Claims 40-44, Meissner teaches the cartridge of claim 22 but do not teach the recited dimensions of the second extension. The only difference between the prior art and the claims is a recitations of relative dimensions of the second extension. [W]here the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, *Gardner v. TEC Systems, Inc.*, 220 USPQ 777 (1984).

Claim 55, Meissner teaches a cartridge (15) including: an inner space, an inlet (115) located at a first diameter end of the cartridge, an outlet (175) located at a second diameter end of the cartridge, a device (150) comprising a hollow body defined by a wall enclosing a cavity of the hollow body, the hollow body having a first end and a second end and being provided with at least one slit shaped opening (154) extending through the wall, the first end of the hollow body being mounted to the cartridge at the inlet such that the hollow body extends into the inner space and the second end of the hollow

body is located in the inner space of the cartridge, the first end of the hollow body being open, wherein the at least one slit shaped opening has a first extension and a second extension being substantially perpendicular to the flow direction and to the first extension, wherein the second extension is significantly shorter than the first extension and significantly shorter than a length of the slit shaped opening in the flow direction and a filter (135) arranged at the outlet, wherein the filter is a planar filter (fig. 2, 5). Meissner does not teach the first diameter end of the cartridge being larger than the second diameter end of the cartridge. The claim merely recites a change in the shape of the cartridge from a cylindrical cartridge to a conical shaped cartridge. The configuration of the apparatus is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant, *In re Dailey*, 149 USPQ 47 (1966). Applicant has not provided any evidence showing that a conical shaped cartridge would perform any differently or have any unexpected results over a cylindrical cartridge. Such a change in the shape of the cartridge is considered to be obvious to one of ordinary skill in the art and does not patentably distinguish over the prior art.

Claims 56 and 57, Meissner further teaches the at least one slit shaped opening is located nearer to the first diameter end of the cartridge than the second diameter end of the cartridge, the second diameter end of the cartridge being opposite the first diameter end of the cartridge (fig. 5); and the filter is attached to the second diameter end of the cartridge (fig. 5).

2. Claims 50 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meissner '536 and Weber US 3 155 612.

Meissner teaches the cartridge of claim 47 would be obvious as detailed above but does not teach the wall portion being substantially planar. Weber teaches a hollow body having a wall portion (11) in the proximity of a second end with at least one slit shaped opening extending through the wall portion wherein the wall portion is substantially planar and a center axis extends substantially in parallel with a normal direction of the planar wall portion (fig.1-4). The recitation of configuration of the wall portion is a recitation of a change in shape of the wall portion. The configuration of the apparatus is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant, *In re Dailey*, 149 USPQ 47 (1966). Furthermore, the claimed shape of the wall portion is known in the prior art and would have been obvious because the technique for improving a particular class of devices was part of the ordinary capabilities of a person of ordinary skill in the art, in view of the teaching of the technique for improvement in other situations, *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007).

3. Claims 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meissner '536 and Hensley US 4 787 987.

Meissner teaches the cartridge of claim 47 would be obvious as detailed above but does not teach the wall portion being substantially planar. Hensley teaches a hollow

body having a wall portion (40) in the proximity of a second end with at least one slit shaped opening extending through the wall portion wherein the wall portion is substantially planar and wherein a normal direction of the wall portion forms an angle of inclination to the center axis (fig. 1, 3). The recitation of configuration of the wall portion is a recitation of a change in shape of the wall portion. The configuration of the apparatus is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant, *In re Dailey*, 149 USPQ 47 (1966). Furthermore, the claimed shape of the wall portion is known in the prior art and would have been obvious because the technique for improving a particular class of devices was part of the ordinary capabilities of a person of ordinary skill in the art, in view of the teaching of the technique for improvement in other situations, *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007).

4. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meissner '536, Correge et al. US 4 421 646, Weis et al. US 3 730 348 and Marks US 3 317 044.

Meissner teaches the cartridge of claim 22 would be obvious and where the slit shaped opening of the filter element has an upstream and downstream end but does not teach the second extension increasing from the upstream end to the downstream end. Changing the cross section of the slit over the length is only a change in the shape of the slit and is very well known in the art as shown in Correge, Weis and Marks. The

configuration of the apparatus is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant, *In re Dailey*, 149 USPQ 47 (1966). Also, all the claimed elements, i.e. the shape of the slit, were well known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention, *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007).

5. Claims 25 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meissner '536, Weber '612, Hensley '987, Marks '044 and Weis '348.

Meissner teaches the cartridge of claims 24 and 57 as detailed above where the filter has at least one opening but does not teach the filter including a slit shaped opening. The claim limitation of a slit shaped opening is merely a change in the shape of the opening of the filter. All of the prior art cited teach a filter having the claimed shape of a slit shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction and to the first extension, wherein the second extension is significantly shorter than the first extension and significantly shorter than a length of the slit shaped opening in the flow direction, Meissner (150), Weber (11), Hensley (34), Marks (24) and Weis (30). The configuration of the apparatus is a matter of choice which a person of ordinary skill in the art would have

found obvious absent persuasive evidence that the particular configuration is significant, *In re Dailey*, 149 USPQ 47 (1966). Also, all the claimed limitations, i.e. the shape of the slit, were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention, *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007).

Response to Arguments

6. Applicant's arguments with respect to claims 22 and 55 have been considered but are moot in view of the new ground(s) of rejection.

Applicant also argues that Meissner does not teach the hollow body being mounted to the cartridge at the inlet. Applicant claims a cartridge having an inlet at a first end and an outlet at a second end. The structure of an inlet or outlet is merely an opening through which fluid may flow. The apparatus shown in figure 5 of Meissner teaches the claimed inlet and outlet opening structures. Figure 5 indicates fluid flowing from element (175) to element (115), however, the apparatus could operate with fluid flowing in the opposite direction and the apparatus would continue to function. Meissner teaches all of the structural limitations as recited in claims 22 and 55 and is deemed to anticipate the claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN KURTZ whose telephone number is (571)272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin Kurtz
Examiner
Art Unit 1797

/Benjamin Kurtz/
Examiner, Art Unit 1797